

WHITE MESA URANIUM MILL

CONTINGENCY PLAN

As Required Under Part I.H.16

of

State of Utah Groundwater Discharge Permit No.UGW370004

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**WHITE MESA URANIUM MILL
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State of Utah Groundwater Discharge Permit
No. UGW370004**

1. INTRODUCTION

The State of Utah has granted Ground Water Discharge Permit No. UGW370004 (the "GWDP") for Denison Mines (USA) Corp.'s ("Denison's") White Mesa Uranium Mill (the "Mill"). The GWDP specifies the construction, operation, and monitoring requirements for all facilities at the Mill that have a potential to discharge pollutants directly or indirectly into groundwater.

2. PURPOSE

This Contingency Plan (the "Plan") provides a detailed list of actions Denison will take to regain compliance with GWDP limits and Discharge Minimization Technology ("DMT") requirements defined in Parts I.C and I.D of the GWDP. The timely execution of contingency and corrective actions outlined in this Plan will provide Denison with the basis to exercise the Affirmative Action Defense provision in Part I.G.3.c) of the GWDP and thereby avoid noncompliance status and potential enforcement action¹.

The contingency actions required to regain compliance with GWDP limits and DMT requirements defined in Parts I.C and I.D of the GWDP are described below.

3. GROUNDWATER CONTAMINATION

Since there are many different possible scenarios that could potentially give rise to groundwater contamination, and since the development and implementation of a remediation program will normally be specific to each particular scenario, this Plan does not outline a definitive remediation program. Rather, this Plan describes the steps that will be followed by Denison in the event Denison is found to be out of compliance with respect to any constituent in any monitoring well, pursuant to Part I.G.2 of the GWDP.

When the concentration of any parameter in a compliance monitoring well is out of compliance, Denison will, subject to specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

¹ Part I.G.3.c) of the GWDP provides that, in the event a compliance action is initiated against Denison for violation of permit conditions relating to best available technology or DMT, Denison may affirmatively defend against that action by demonstrating that it has made appropriate notifications, that the failure was not intentional or caused by Denison's negligence, that Denison has taken adequate measures to meet permit conditions in a timely manner or has submitted an adequate plan and schedule for meeting permit conditions, and that the provisions of UCA 19-5-107 have not been violated.

3.1. Notification

Denison will notify the Executive Secretary of the out of compliance status within 24 hours after detection of that status followed by a written notice within 5 days after detection, as required under Part I.G.4.a) of the GWDP.

3.2. Continuation of Accelerated Monitoring

Denison will continue accelerated sampling for the parameter in that compliance monitoring well pursuant to Part I.G.1 of the GWDP, unless the Executive Secretary determines that other periodic sampling is appropriate, until the facility is brought into compliance, as required under Part I.G.4.b) of the GWDP.

If the accelerated monitoring demonstrates that the Mill is no longer out of compliance with respect to a parameter in a well, then, with the written approval of the Executive Secretary, Denison will cease accelerated monitoring for the parameter, and no further steps will be followed by Denison with respect to such parameter.

3.3. Submission of Plan and Timetable

If the accelerated monitoring confirms that the Mill is out of compliance with respect to a parameter in a well, then, within 30 days of such confirmation, Denison will prepare and submit to the Executive Secretary a plan and a time schedule for assessment of the sources, extent and potential dispersion of the contamination, and an evaluation of potential remedial action to restore and maintain ground water quality to ensure that permit limits will not be exceeded at the compliance monitoring point and that DMT will be reestablished, as required under part I.G.4.c) of the GWDP. This plan will normally include:

- a) The requirement for Denison to prepare a detailed and comprehensive operational history of the facility and surrounding areas which explores all activities that may have contributed to the contamination;
- b) A requirement for Denison to complete an evaluation, which may include geochemical and hydrogeological analyses, to determine whether or not the contamination was caused by Mill activities or was caused by natural forces or offsite activities;
- c) If it is concluded that the contamination is the result of current or past activities at the Mill, Denison will prepare a Characterization Report, which characterizes the physical, chemical, and radiological extent of the ground water contamination. This will normally include a description of any additional wells to be used or installed to characterize the plume and the hydrogeologic characteristics of the affected zone, the analytical parameters to be obtained, the

samples of ground water to be taken, and any other means to measure and characterize the affected ground water and contamination zone; and

- d) If it is concluded that the contamination is the result of current or past activities at the Mill, Denison will evaluate potential remedial actions, including actions to restore and maintain groundwater quality to ensure that permit limits will not be exceeded at the compliance monitoring point and that DMT will be reestablished, as well as actions that merely allow natural attenuation to operate and actions that involve applying for Alternate Concentration Limits (“ACLs”). If groundwater remediation is required, Denison will prepare and submit to the Executive Secretary a Ground Water Remediation Plan, as described in Section 3.4 below.

3.4. Groundwater Remediation Plan

If the Executive Secretary determines that ground water remediation is needed, Denison will submit a Ground Water Remediation Plan to the Executive Secretary within the time frame requested by the Executive Secretary. The Ground Water Remediation Plan will normally include:

- a) A description and schedule of how Denison will implement a corrective action program that prevents contaminants from exceeding the ground water protection levels or ACLs at the compliance monitoring point(s) or other locations approved by the Executive Secretary, by removing the contaminants, treating them in place, or by other means as approved by the Executive Secretary;
- b) A description of the remediation monitoring program to demonstrate the effectiveness of the plan; and
- c) Descriptions of how corrective action will apply to each source of the pollution.

Denison will implement the Ground Water Remediation Plan in accordance with a schedule to be submitted by Denison and approved by the Executive Secretary.

4. MILL DISCHARGE VIOLATIONS – INCLUDING UNAUTHORIZED DISCHARGE OR RELEASE OF PROHIBITED CONTAMINANTS TO THE TAILING CELLS

Part I.C.2. of the GWDP provides that only 11e.(2) by-product material authorized by the Mill’s State of Utah Radioactive Materials License No. UT-2300478 (the “Radioactive Materials License”) shall be discharged to or disposed of in the Mill’s tailings cells.

Part I.C.3 of the GWDP provides that discharge of other compounds into the Mill’s tailings cells, such as paints, used oil, antifreeze, pesticides, or any other contaminant not defined as 11e.(2) material is prohibited.

In the event of any unauthorized disposal of contaminants or wastes (the “Unauthorized Materials”) to the Mill’s tailings cells, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

4.1. Notifications

- a) Upon discovery, the Mill Manager or RSO will be notified immediately; and
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification within five days of discovery.

4.2. Field Activities

- a) Upon discovery, Mill personnel will immediately cease placement of Unauthorized Materials into the Mill’s tailings cells;
- b) To the extent reasonably practicable and in a manner that can be accomplished safely, Mill personnel will attempt to segregate the Unauthorized Materials from other tailings materials and mark or record the location of the Unauthorized Materials in the tailings cells. If it is not reasonably practicable to safely segregate the Unauthorized Material from other tailings materials, Mill personnel will nevertheless mark or record the location of the Unauthorized Materials in the tailings cells;
- c) To the extent reasonably practicable and in a manner that can be accomplished safely, Mill personnel will attempt to remove the Unauthorized Material from the tailings cells; and
- d) Denison will dispose of the Unauthorized Material under applicable State and Federal regulations.

4.3. Request for Approvals and/or Waivers

If it is not reasonably practicable to safely remove the Unauthorized Materials from the tailings cells, then Denison will:

- a) Submit a written report to the Executive Secretary analyzing the health, safety and environmental impacts, if any, associated with the permanent disposal of the Unauthorized Material in the Mill’s tailings cells;
- b) Apply to the Executive Secretary for any amendments that may be required to the GWDP and the Radioactive Materials License to properly accommodate the permanent disposal of the Unauthorized Material in the Mill’s tailings cells in a manner that is protective of health, safety and the environment; and

- c) Make all applications required under the United States Nuclear Regulatory Commission's ("NRC's") Non-11e.(2) Disposal Policy, including obtaining approval of the Department of Energy as the long term custodian of the Mill's tailings, in order to obtain approval to permanently dispose of the Unauthorized Material in the Mill's tailings cells.

5. DMT VIOLATIONS

5.1. Tailings Cell Wastewater Pool Elevation Above the Maximum Elevations

Part I.D.2 of the GWDP provides that authorized operation and maximum disposal capacity in each of the existing tailings cells shall not exceed the levels authorized by the Radioactive Materials License and that under no circumstances shall the freeboard be less than three feet, as measured from the top of the flexible membrane liner ("FML").

In the event that tailings cell wastewater pool elevation in any tailings cell exceeds the maximum elevations mandated by Part I.D.2 of the GWDP, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification within five days of discovery;
- c) Upon discovery, Mill personnel will cease to discharge any further tailings to the subject tailings cell, until such time as adequate freeboard capacity exists in the subject tailings cell for the disposal of the tailings;
- d) To the extent reasonably practicable, without causing a violation of the freeboard limit in any other tailings cell, Mill personnel will promptly pump fluids from the subject tailings cell to another tailings cell until such time as the freeboard limit for the subject tailings cell is in compliance. If there is no room available in another tailings cell, without violating the freeboard limit of such other cell, then, as soon as reasonably practicable, Mill personnel will cease to discharge any further tailings to any tailings cell until such time as adequate freeboard capacity exists in all tailings cells;
- e) If it is not reasonably practicable to pump sufficient solutions from the subject tailings cell to another tailings cell, then the solution levels in the subject tailings cell will be reduced through natural evaporation; and

- f) Denison will perform a root cause analysis of the exceedance and will implement new procedures or change existing procedures to minimize the chance of a recurrence.

5.2. Excess Head in Tailings Cells 2 and 3 Slimes Drain Systems

Part I.D.3.b)1) of the GWDP provides that Denison shall at all times maintain the average wastewater head in the slimes drain access pipe in Cell 2 to be as low as reasonably achievable, in accordance with a DMT Monitoring Plan approved by the Executive Secretary pursuant to Part I.H.13 of the GWDP, and that for Cell 3, this requirement shall apply only after initiation of de-watering operations.

In the event that the average wastewater head in the slimes drain access pipe for Cell 2 or, after initiation of de-watering activities, Cell 3 exceeds the levels specified in the DMT Monitoring Plan, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Mill personnel will promptly pump the excess fluid into an active tailings cell, or other appropriate containment or evaporation facility approved by the Executive Secretary;
- c) If the exceedance is the result of equipment failure, Mill personnel will attempt to repair or replace the equipment;
- d) If the cause of the exceedance is not rectified within 24 hours, Denison will provide verbal notification to the Executive Secretary within the ensuing 24 hours followed by a written notification within five days; and
- e) If not due to an identified equipment failure, Denison will perform a root cause analysis of the exceedance and will implement new procedures or change existing procedures to minimize the chance of a recurrence.

5.3. Excess Elevation For Tailings Solids

Part I.D.3 b)2) of the GWDP provides that upon closure of any tailings cell, Denison shall ensure that the maximum elevation of the tailings waste solids does not exceed the top of the FML.

In the event that, upon closure of any tailings cell, the maximum elevation of the tailings waste solids exceeds the top of the FML, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification within five days of discovery;
- c) To the extent reasonably practicable, without causing a violation of the freeboard limit in any other tailings cell, Mill personnel will promptly remove tailings solids from the subject tailings cell to another tailings cell, or other location approved by the Executive Secretary, until such time as the maximum elevation of the tailings waste solids in the subject tailings cell does not exceed the top of the FML; and
- d) Denison will perform a root cause analysis of the exceedance and will implement new procedures or change existing procedures to minimize the chance of a recurrence.

5.4. Roberts Pond Wastewater Elevation

Part I.D.3 c) of the GWDP provides that the Permittee shall operate Roberts Pond so as to provide a minimum 2-foot freeboard at all times and that under no circumstances shall the water level in Roberts Pond exceed an elevation of 5,624 feet above mean sea level.

In the event that the wastewater elevation exceeds this maximum level, Denison shall remove the excess wastewater and place it into containment in Tailings Cell 1 within 72 hours of discovery, as specified in Part I.D.3 c) of the GWDP.

In the event that, Denison fails to so remove any such excess wastewater, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately; and
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification and proposed corrective actions within five days of discovery.

5.5. Feedstock Storage Area

Part I.D.3. d) of the GWDP provides that open-air or bulk storage of all feedstock materials at the Mill facility awaiting Mill processing shall be limited to the eastern portion of the Mill site area described in Table 4 of the GWDP, and that storage of feedstock materials at the facility outside that area shall be performed and maintained only in closed, water-tight containers.

In the event that, storage of any feedstock at the Mill is not in compliance with the requirements specified in Part I.D.3. d) of the GWDP, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification within five days of discovery;
- c) Mill personnel will:
 - (i) move any open-air or bulk stored feedstock materials to the portion of the Mill site area described in Table 4 of the GWDP;
 - (ii) ensure that any feedstock materials that are stored outside of the area described in Table 4 of the GWDP are stored and maintained in closed, water-tight containers; and
 - (iii) to the extent that any such containers are observed to be leaking, such leaking containers will be placed into watertight over-pack containers, and any impacted soils will be removed and will be deposited into the Mill's active tailings cell; and
- d) Denison will perform a root cause analysis of the non-compliant activity and will implement new procedures or change existing procedures to minimize the chance of a recurrence.

5.6. Mill Site Chemical Reagent Storage

Part I.D.3. e) of the GWDP provides that for all chemical reagents stored at existing storage facilities, Denison shall provide secondary containment to capture and contain all volumes of reagent(s) that might be released at any individual storage area, and that for any new construction of reagent storage facilities, the secondary containment and control shall prevent any contact of the spilled reagent with the ground surface.

In the event that Denison does not provide the required secondary containment required under Part I.d.3. e) of the GWDP, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification within five days of discovery; and

- c) Denison will promptly remediate any spilled re-agent resulting from the failure to provide the required secondary containment under Part I.d.3.e) of the GWDP, by removal of the contaminated soil and disposal in the active tailings cell.

5.7. Failure to Construct as per Approval

Part I.D.4 of the GWDP provides that any construction, modification, or operation of new waste or wastewater disposal, treatment, or storage facilities shall require submittal of engineering design plans and specifications, and prior Executive Secretary review and approval, and that a Construction Permit may be issued.

In the event that, any new waste or wastewater disposal, treatment, or storage facilities are constructed at the Mill facility without obtaining prior Executive Secretary review and approval, or any such facilities are not constructed in accordance with the provisions of any applicable Construction Permit, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately; and
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification and proposed corrective actions within five days of discovery.

5.8. Failure to Comply with Stormwater Management and Spill Control Requirements

Part I.D.8 of the GWDP provides that Denison will manage all contact and non-contact stormwater and control contaminant spills at the Mill facility in accordance with an approved Stormwater Best Management Practices Plan, pursuant to Part I.H.17 of the GWDP.

In the event that any contact or non-contact stormwater or contaminant spills are not managed in accordance with the Mill's approved Stormwater Best Management Practices Plan, Denison will, subject to any specific requirements of the Executive Secretary as set forth in any notice, order, remediation plan or the equivalent, implement the following process:

- a) Upon discovery, the Mill Manager or RSO will be notified immediately;
- b) Denison will provide verbal notification to the Executive Secretary within 24 hours of discovery followed by a written notification and proposed corrective actions within five days of discovery; and
- c) To the extent still practicable at the time of discovery, Denison will manage any such contaminant spill in accordance with the Mill's approved Stormwater Best Management Practices Plan. To the extent it is no longer practicable to so

manage any such spill, Denison will agree with the Executive Secretary on appropriate clean up and other measures.